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Claim Amendments:

This listing of claims will replace all prior versions, and listings, of claims in the application:

- 1. (Withdrawn) A method of depositing a coating, comprising: providing a substrate; and thermally spraying a ceramic powder comprising a garnet crystal structure, to form a coating on the substrate, the coating comprising a garnet crystal structure phase.
- 2. (Withdrawn) The method of claim 1, wherein the powder comprises M3Al5O12 having the garnet crystal structure, wherein M consists of at least one element from the group consisting of yttrium, scandium, lanthanide series elements, and combinations thereof.
 - 3. (Withdrawn) The method of claim 2, wherein M includes at least yttrium.
- 4. (Withdrawn) The method of claim 3, wherein M includes yttrium and not greater that 20 mol% of scandium, a lanthanide series element, and combinations thereof, of the total amount of M.
 - 5. (Withdrawn) The method of claim 4, wherein M includes yttrium and neodymium.
- 6. (Withdrawn) The method of claim 3, wherein the powder consists essentially of yttrium aluminum garnet (YAG).
- 7. (Withdrawn) The method of claim 6, wherein the powder is stoichiometric yttrium aluminum garnet.
- 8. (Withdrawn) The method of claim 6, wherein the powder is rich in yttrium content relative to stoichiometric YAG.

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- 9. (Withdrawn) The method of claim 1, wherein the powder consists essentially of M₃Al₅O₁₂ having the garnet crystal structure, wherein M consists of at least one element from the group consisting of yttrium, scandium, lanthanide series elements, and combinations thereof.
 - 10. (Withdrawn) The method of claim 1, wherein the substrate is metal.
- 11. (Withdrawn) The method of claim 10, wherein the substrate contains at least one element from the group consisting of molybdenum, tungsten, iron, nickel, aluminum, and titanium.
- 12. (Withdrawn) The method of claim 11, wherein the substrate comprises an aluminum alloy.
- 13. (Withdrawn) The method of claim 11, wherein the substrate comprises a stainless steel alloy.
- 14. (Withdrawn) The method of claim 1, wherein the substrate is a semiconductor processing component.
 - 15. (Withdrawn) The method of claim 1, wherein the substrate comprises a non-metal.
 - 16. (Withdrawn) The method of claim 15, wherein the substrate comprises silicon.
 - 17. (Withdrawn) The method of claim 15, wherein the substrate comprises a ceramic.
- 18. (Withdrawn) The method of claim 15, wherein the substrate comprises a material selected from the group consisting of alumina and silica
- 19. (Withdrawn) The method of claim 1, wherein the predominant phase of the coating is said garnet crystal structure.

- 20. (Withdrawn) The method of claim 19, wherein the coating comprises $M_3Al_5O_{12}$ having the garnet crystal structure, wherein M consists of at least one element from the group consisting of yttrium, scandium, lanthanide series elements, and combinations thereof.
 - 21. (Withdrawn) The method of claim 20, wherein M includes at least yttrium.
- 22. (Withdrawn) The method of claim 21, wherein M includes yttrium and not greater that 20 mol% of scandium, a lanthanide series element, and combinations thereof, of the total amount of M.
 - 23. (Withdrawn) The method of claim 22, wherein M includes yttrium and neodymium.
- 24. (Withdrawn) The method of claim 21, wherein M includes yttrium and not greater that 20 mol% of scandium, a lanthanide series element, and combinations thereof, of the total amount of M.
- 25. (Withdrawn) The method of claim 21, wherein the coating consists essentially of yttrium aluminum garnet (YAG).
- 26. (Withdrawn) The method of claim 25, wherein the coating is stoichiometric yttrium aluminum garnet.
- 27. (Withdrawn) The method of claim 25, wherein the coating is rich in yttrium content relative to stoichiometric YAG.
- 28. (Withdrawn) The method of claim 19, wherein the coating consists essentially of M₃Al₅O₁₂ having the garnet crystal structure, wherein M consists of at least one element from the group consisting of yttrium, scandium, lanthanide series elements, and combinations thereof.
- 29. (Withdrawn) The method of claim 19, wherein the coating has a maximum peak height of crystalline phases other than said garnet crystal structure phase that is less than 10% of the maximum peak height of the garnet crystal structure phase.

- 30. (Withdrawn) The method of claim 1, wherein the coating comprises said garnet crystal structure as deposited by thermal spraying, without any post-deposition heat treatment steps.
- 31. (Withdrawn) The method of claim 1, wherein the substrate is preheated prior to thermal spraying.
- 32. (Withdrawn) The method of claim 31, wherein the substrate is preheated to a temperature of at least about 150°C.
- 33. (Withdrawn) The method of claim 1, wherein thermal spraying is carried out by supplying the ceramic powder to a plasma torch.
 - 34. (Currently Amended) A coated article, comprising:
 - a substrate; and
 - a coating directly contacting and overlying the substrate, the coating having a thickness greater than about 10 microns and comprising consisting essentially of a garnet crystal structure, wherein the substrate has a coefficient of thermal expansion at least about 30% greater than or less than a thermal expansion coefficient of the coating.
- 35. (Original) The article of claim 34, wherein the substrate is metal, and comprises at least one element from the group consisting of molybdenum, tungsten, iron, nickel, aluminum, and titanium.
- 36. (Original) The article of claim 35, wherein the substrate comprises an iron-based or nickel-based superalloy.
- 37. (Original) The article of claim 35, wherein the substrate comprises a stainless steel alloy.

- 38. (Original) The article of claim 35, wherein the substrate comprises an aluminum alloy.
 - 39. (Original) The article of claim 34, wherein the substrate comprises a non-metal.
 - 40. (Original) The article of claim 39, wherein the substrate comprises silicon.
 - 41. (Original) The article of claim 39, wherein the substrate comprises a ceramic.
- 42. (Currently Amended) The article of claim 39 wherein the substrate is selected from a group consisting of comprises silica and alumina.
- 43. (Original) The article of claim 34, wherein the coating has a thickness of at least about 50 microns.
- 44. (Original) The article of claim 34, wherein the coating has a thickness at least about 100 microns.
- 45. (Currently Amended) The article of claim 34, wherein the predominant phase of the coating and the powder is said garnet crystal structure.
 - 46. (Currently Amended) A semiconductor processing tool, comprising: a substrate; and
 - a coating overlying the substrate, the coating being formed by thermal spraying a ceramic powder comprising a garnet crystal structure, whereby the coating comprises consists essentially of a garnet crystal structure phase, and the coating has a thickness greater than about 10 microns.
- 47. (Original) The tool of claim 46, wherein the processing tool is selected from the group consisting of a deposition apparatus, a diffusion apparatus, an etch apparatus, a chemical mechanical polishing apparatus, and annealing apparatus.

- 48. (Original) The tool of claim 47, wherein the processing tool is an etch apparatus.
- 49. (Original) The tool of claim 48, wherein the etch apparatus includes an etching chamber defined by a base upon which is disposed a lid, the etch apparatus including an electrostatic chuck disposed in the chamber for holding a semiconductor wafer.
- 50. (Original) The tool of claim 49, wherein the substrate includes at least one of the base, the lid, and the electrostatic chuck.
- 51. (Original) The tool of claim 49, wherein the etch apparatus further includes focus ring disposed in the chamber, positioned to surround a semiconductor wafer, and a liner, wherein the electrostatic chuck is disposed radially within the liner.
- 52. (Original) The tool of claim 51, wherein the substrate includes at least one of the ring and the liner.
 - 53. (Original) The tool of claim 49, wherein the lid is in the form of a dome.
 - 54. (Canceled)
 - 55. (Withdrawn) A method for forming semiconductor devices, comprising: providing a silicon wafer;
 - exposing the silicon wafer to a series of processing steps to form plurality of semiconductor die areas, the processing steps including a step of placing the wafer in a processing chamber of a processing tool, a component of which has a ceramic coating thereon comprising a garnet crystal phase; and dicing the wafer into a plurality of semiconductor die.
- 56. (Withdrawn) The method of claim 55, wherein the processing tool is selected from the group consisting of a deposition apparatus, a diffusion apparatus, an etch apparatus, a chemical mechanical polishing apparatus, and annealing apparatus.

- 57. (Withdrawn) The method of claim 56, wherein the processing tool is an etch apparatus.
- 58. (Withdrawn) The method of claim 57, wherein the etch apparatus includes an etching chamber defined by a base upon which is disposed a lid, the etch apparatus including an electrostatic chuck disposed in the chamber for holding a semiconductor wafer.
- 59. (Withdrawn) The method of claim 58, wherein the component on which the coating is disposed includes at least one of the base, the lid, and the electrostatic chuck.
- 60. (Withdrawn) The method of claim 58, wherein the etch apparatus further includes a focus ring disposed in the chamber, positioned to surround a semiconductor wafer, and a liner, wherein the electrostatic chuck is disposed radially within the liner.
- 61. (Withdrawn) The method of claim 60, wherein the component on which the coating is disposed includes at least one of the focus ring and the liner.
- 62. (Withdrawn) The method of claim 55, further comprising a step of packaging the semiconductor dic to form a packaged semiconductor device.
- 63. (Withdrawn) The method of claim 55, wherein the ceramic coating is provided on a surface of the component, the surface being formed of a material having a coefficient of thermal expansion at least about 30% greater than or less than a thermal expansion coefficient of the coating.
- 64. (Withdrawn) The method of claim 55, wherein the coating is formed by thermal spraying a ceramic powder comprising a garnet crystal structure, whereby the coating comprises a garnet crystal structure phase.